

SQL Project



by **Muhammad Ejaz**

Tables:

Orders
Accounts
Products

```

1  -- missing and duplicates
2
3  ● SELECT    COUNT(*)
4  FROM      orders
5  WHERE     order_no IS NULL;
6
7  -- Checking for duplicates
8
9  ● SELECT    order_no, COUNT(order_no)
10 FROM      orders
11 GROUP BY  order_no
12 HAVING    COUNT(order_no) > 1;
13
14 ● SELECT    *
15 FROM      orders
16 WHERE
17     order_no = '5768-2'
18     OR order_no = '6159-2';

```

Result Grid |   Filter Rows: | Export:  | Wrap Cell Content: 

| order_no | order_date | customer name | address | city | state | customer_type | account_id | order_priority |
|----------|------------|----------------|-------------------------------|---------|-------|---------------|------------|----------------|
| 5768-2 | 2015-01-22 | Bill Donatelli | 359 Crown Street, Surry Hills | Sydney | NSW | Corporate | 4 | Critical |
| 5768-2 | 2015-01-22 | Bill Donatelli | 359 Crown Street, Surry Hills | Sydney | NSW | Corporate | 4 | Critical |
| 6159-2 | 2015-12-24 | M. J. G. Smith | 22 Glen Road, Glen... | Glen... | NSW | Home Office | 6 | Medium |

```

1 • create database Order_DB;
2 • use Order_DB;
3   -- Checking DataTypes
4
5 • Describe orders;
6 • Describe account;
7 • describe products;
8
9 • update orders
10  set order_date=str_to_date(order_date,'%m/%d/%Y'),
11    ship_date=str_to_date(ship_date,'%m/%d/%Y');
12
13 • alter table orders _
14   modify column order_date date,
15   modify column ship_date date;
16

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| Field | Type | Null | Key | Default | Extra |
|---------------|------|------|-----|---------|-------|
| order_no | text | YES | | NULL | |
| order_date | date | YES | | NULL | |
| customer name | text | YES | | NULL | |
| address | text | YES | | NULL | |

Result 11 x

Output

Limit to 1000 rows

1

-- 1. What is the total revenue generated by each product category?

2

3

SELECT

4

product_category, ROUND(SUM(total), 2) AS Revenue

5

FROM

6

products

7

JOIN

8

orders ON products.product_id = orders.product_id

9

GROUP BY product_category;

It Grid


Filter Rows:

Export:

Wrap Cell Content:

| product_category | Revenue |
|------------------|-----------|
| Office Supplies | 342518.02 |
| Technology | 831273.73 |
| Furniture | 31920.3 |


t2 x



```
1  -- 2.How many unique products have been ordered?
2
3  SELECT DISTINCT
4      COUNT(product_name) AS Unique_Products
5  FROM
6      products|
```

Result Grid |   Filter Rows: | Export:  | Wrap Cell Content: 


| | Unique_Products |
|---|-----------------|
| ▶ | 147 |



```
1  -- 3. What is the total revenue generated each year?
2
3  SELECT
4      EXTRACT(YEAR FROM order_date) AS Year,
5      FORMAT(SUM(total), 2) AS Revenue
6  FROM
7      orders
8  GROUP BY year;
```

Result Grid |  Filter Rows: | Export:  | Wrap Cell Content: 


| Year | Revenue |
|------|------------|
| 2013 | 185,547.20 |
| 2014 | 339,841.08 |
| 2015 | 383,167.13 |
| 2016 | 273,561.12 |
| 2017 | 23,595.52 |







```
1  -- 4. What is the date of the latest and earliest order?
2
3  SELECT
4      MIN(order_date) AS Earliest_Date,
5      MAX(order_date) AS Latest_Date
6  FROM
7      orders;
```

Result Grid |   Filter Rows: | Export:  | Wrap Cell Content: 

| | Earliest_Date | Latest_Date |
|---|---------------|-------------|
| ▶ | 2013-02-11 | 2017-02-07 |



```
1  -- 6. What product category has the lowest average price of products?
2
3  SELECT
4      product_category,
5      ROUND(AVG(retail_price), 2) AS Average_Price
6  FROM
7      orders
8      JOIN
9      products USING (product_id)
10 GROUP BY product_category
11 ORDER BY Average_Price
12 LIMIT 1;
```

Result Grid |  Filter Rows: | Export:  | Wrap Cell Content:  | Fetch rows: 

| | product_category | Average_Price |
|---|------------------|---------------|
| ▶ | Office Supplies | 17.9 |

1 -- 7. What are the top 10 highest performing products?

2

3 SELECT

4 product_name, ROUND(SUM(total), 2) AS Revenue

5 FROM

6 products

7 JOIN

8 orders USING (product_id)

9 GROUP BY product_name

10 ORDER BY Revenue DESC

11 LIMIT 10;

12

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:


| product_name | Revenue |
|--------------------------------|-----------|
| ▶ Cando PC940 Copier | 214029.4 |
| HFX LaserJet 3310 Copier | 200640.85 |
| Adesso Programmable 142-Key... | 75413.62 |
| E... | ... |


```

1
2  -- What is the name,city & account manager of the 5highest selling product in 2017?
3  ●  SELECT
4      product_name,
5      city,
6      account_manager,
7      ROUND(SUM(total), 2) AS Revenue
8  FROM
9      orders
10     JOIN
11     products USING (product_id)
12     JOIN
13     account USING (account_id)
14  WHERE
15     EXTRACT(YEAR FROM order_date) = 2017
16  GROUP BY product_name , city , account_manager
17  ORDER BY Revenue DESC
18  LIMIT 5;
19

```


| product_name | city | account_manager | Revenue |
|------------------------------------|-----------|------------------|---------|
| UGen Ultra Professional Cordle... | Melbourne | Connor Betts | 8735.28 |
| Adesso Programmable 142-Key... | Sydney | Leighton Forrest | 7018.04 |
| Smiths Colored Interoffice Enve... | Melbourne | Yvette Biti | 1289.65 |
| TechSavi Cordless Elite Duo | Sydney | Mihael Khan | 1218.94 |
| Artisan Legal 4-Ring Binder | Sydney | Natasha Song | 861.62 |







```
1  -- 10. Find the mean amount spent per order by each Customer type?
2
3  SELECT
4      customer_type, ROUND(SUM(total), 2) AS Spent_Amount
5  FROM
6      orders
7  GROUP BY customer_type
8  ORDER BY Spent_Amount;
```

Result Grid |   Filter Rows: | Export:  | Wrap Cell Content: 

| | customer_type | Spent_Amount |
|---|----------------|--------------|
| • | Consumer | 202225.01 |
| | Home Office | 289123.31 |
| | Small Business | 301021.44 |
| | Corporate | 413342.29 |



```
1  -- 11. What is the 5th highest selling product?
2
3  SELECT
4      product_name, ROUND(SUM(total), 2) AS Revenue
5  FROM
6      orders
7      JOIN
8      products USING (product_id)
9  GROUP BY product_name
10 ORDER BY Revenue DESC
11 LIMIT 1 OFFSET 4;
```

Result Grid |   Filter Rows: | Export:  | Wrap Cell Content:  | Fetch rows: 

| product_name | Revenue |
|-----------------------------------|----------|
| UGen Ultra Professional Cordle... | 68699.41 |



Thanks

Date: 10-12-2025